LIEBERT® RDU-S™ RACK MANAGEMENT DEVICE
Quick-Start Guide

The Liebert RDU-S is a compact rack processing unit designed to monitor the environment in electronic equipment racks and rooms through various types of sensors and cameras. The unit can accommodate multiple sensors, such as temperature, humidity, water, smoke, motion and door sensors. It can also be used for remote notification such as activating a beacon light to report problems.

The compact design makes it suitable for installation in a rack, where it takes up little space, or it may be mounted on a wall for access without opening the equipment rack.

1.0 PORTS AND INDICATORS

Figure 1 shows the front panel of the Liebert RDU-S. The ports and their functions are listed in **Table 1**.

Figure 1 Ports and indicators on front of unit

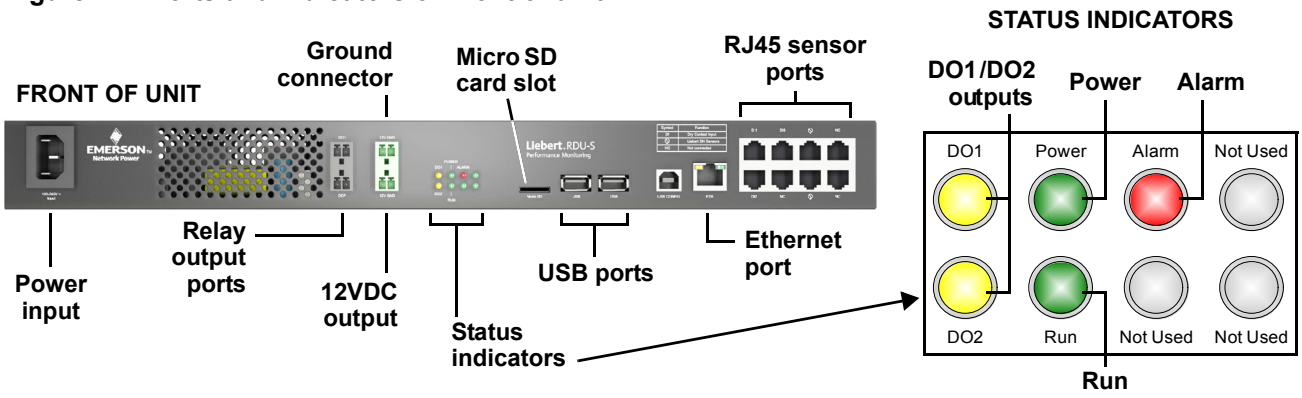


Table 1 Port descriptions

Port	#	Label	Function
Power input	1	100-240V~Input	Input power to the unit: 100-200VAC, 50 and 60Hz
Relay output ports	2	DO1, DO2	Connect to output relays 1 and 2
12VDC output	1	12V	Power to external sensor (12VDC power)
Ground connector	1	GND	12VDC ground
Micro SD card slot	1	Micro SD	Expand storage capacity with 2G, 4G or 8G Micro SD card
USB ports	2	USB1, USB2	Connect to a USB camera
Ethernet port, RJ45	1	ETH	Connect to a 10/100 Ethernet port for Web access & SNMP connectivity
RJ45 sensor ports*:			
Digital input ports	3	DI1, DI2, DI3	Connect digital sensors (one sensor per port)—on/off, dry contact sensors such as smoke detectors and motion detectors
Liebert SN ports	2		Connect Liebert SN™ sensors for temperature, humidity and other conditions

* See **Section 3.0** for details on connecting sensors to RJ45 sensor ports (excluding Ethernet port).

Status Indicators

Refer to **Table 2** for details on the unit's status indicators: relay outputs, power, alarm and run.

Table 2 Indicator descriptions

Indicator	Status of:	Color	Status - Indicator On / Flashing		Status - Indicator Off	
DO1, DO2	Relay outputs	Yellow	On	Relay DO1 or DO2 is closed.	Off	Relay DO1 or DO2 is open.
POWER	Input power	Green	On	Input power is present.	Off	Input power is not present.
ALARM	Alarms	Red	On-Solid	Unit has a critical alarm.	Off	No alarms detected.
			Flashing	Flashing Unit has a warning alarm.		
RUN	Unit operation	Green	Flashing	Unit is operating normally.	Off	Unit is not running.

2.0 MOUNTING THE UNIT

WARNING

Ensure that the Liebert RDU-S is Off and that all local and remote input power sources have been disconnected before beginning to install the unit. Never open, alter or move the unit while input power is present.

NOTE

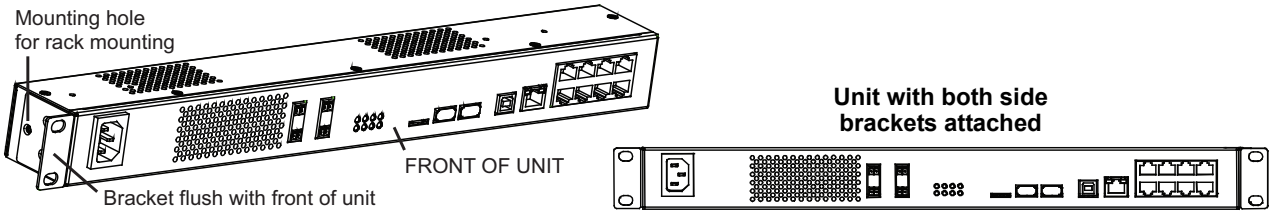
All external circuits must be safety extra-low voltage (SELV) circuits. The insulation and isolation must be enhanced between the SELV circuits and the power grid.

Mount the Liebert RDU-S securely before connecting equipment, typically in a 19" rack or mounted on a wall.

- The Liebert RDU-S must be installed near a power outlet or socket within easy reach using the supplied power cord.
- The unit must be connected to the power outlet or socket with protective earthing terminal.
- The unit must be securely installed in a rack or on a wall BEFORE using or connecting any equipment.

For horizontal mounting in a rack, use the factory-supplied brackets and screws (M3 and M6):

1. Place the shorter side of a bracket flush with the front panel and the longer side against one side of the unit, shown below left.
2. Align the rear bracket hole with a mounting hole on the unit, shown below left, and use an M3 screw to fasten the bracket to the side of the unit.



3. Repeat **Steps 1** and **2** for the bracket on the other side. The Liebert RDU-S with both brackets attached is shown above right.
4. Use M6 screws to fasten both brackets of the Liebert RDU-S onto the rack's front or rear rails.

Refer to the user manual for other mounting options:

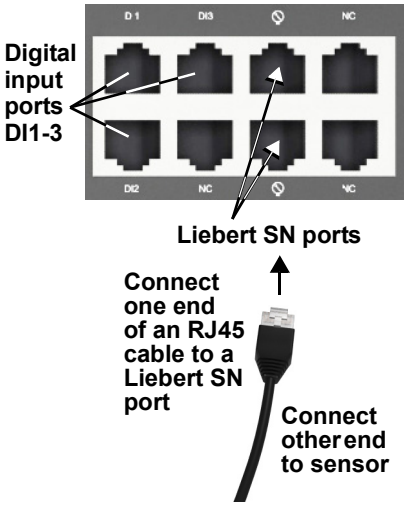
- Wall mounting with factory-supplied brackets and screws
- Vertical mounting in a rack with an optional round hanger available separately.

3.0 CONNECTING TO SENSOR PORTS

For sensor ports, follow these guidelines and see the Liebert RDU-S user manual, SL-31310.

3.1 Digital Input Ports DI1, DI2, DI3

The three digital input ports DI1, DI2 and DI3, shown at right, may be used to connect digital sensors, such as smoke detectors and motion detectors.



3.2 Liebert SN Sensor Ports

The two ports labeled with a Liebert SN icon, shown at right, are designed for use with Liebert SN sensors. Each sensor is shipped with a cable to connect to one of the Liebert SN ports on the Liebert RDU-S. You may use this cable or another standard straight-through cable.

To connect the sensor:

- Insert either end of an RJ45 connector on the factory-supplied RJ45-RJ45 cable (or user-supplied cable) into the Liebert SN port on the Liebert RDU-S, identified by the icon shown below.

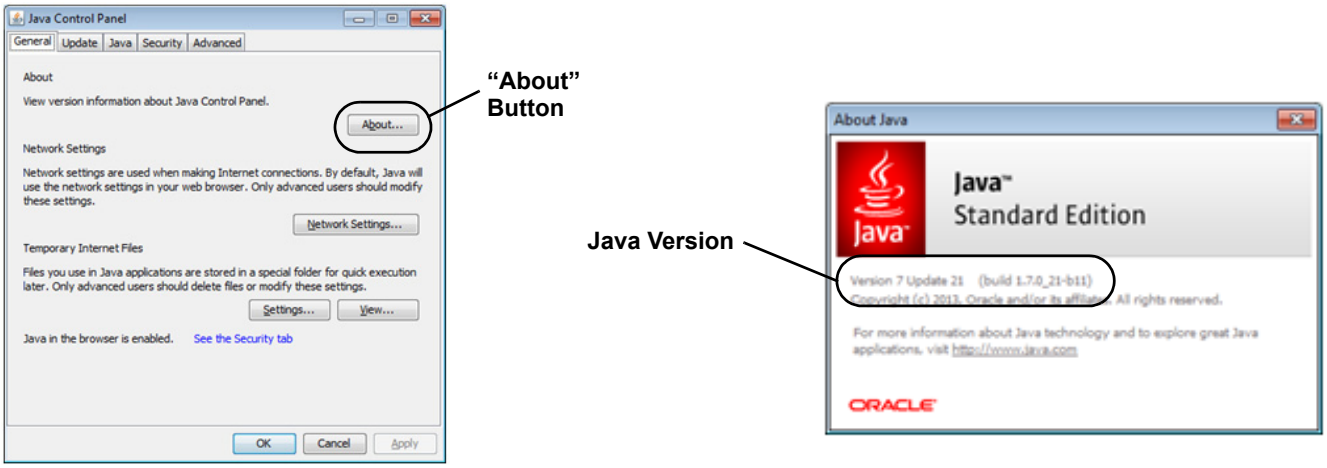
Icon	Description	Purpose
	Liebert SN ports	Use these ports **ONLY** for Liebert SN sensors.

- Connect the other end of the cable to the sensor.

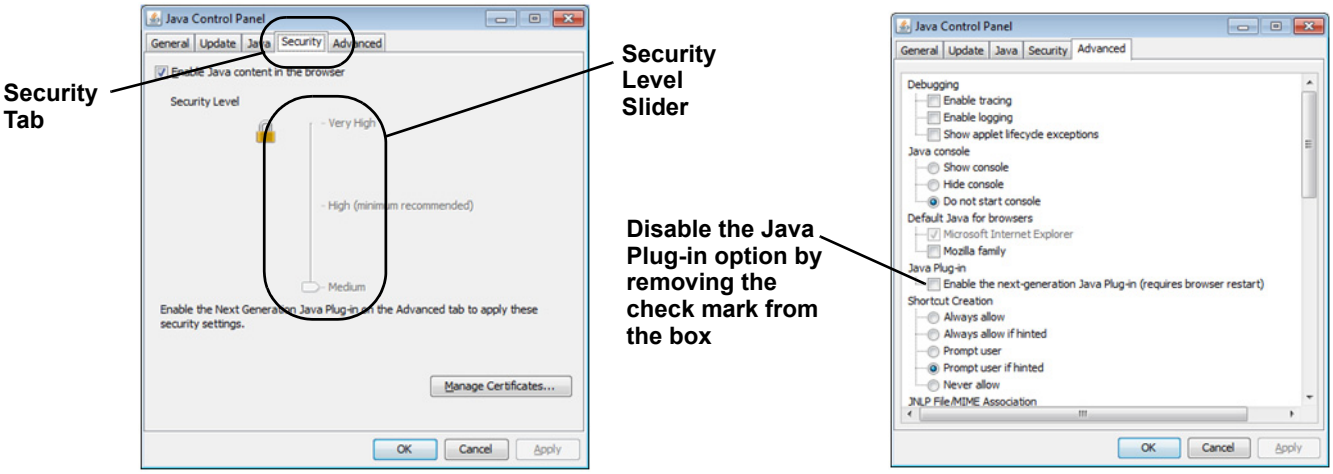
4.0 JAVA CONFIGURATION SETTINGS FOR LIEBERT RDU-S

Before logging into the Liebert RDU-S Web pages, verify that Java Version 1.7 Update 21 is installed on your computer.

1. Open the Java Control Panel from the Control Panel.
2. On the Start Menu enter *Java* in the search option. This will display the Java Control Panel.
3. Launch the Java (32-bit) application.
4. Select the "About" button. This will display the version information. Verify that Version 7 Update 21 or greater is installed. If the Java version on the computer is older than Version 7, Java must be updated before continuing.


Java Control Panel
General
Update
Java
Security
Advanced
About
View version information about Java Control Panel.
About...
Network Settings
Network settings are used when making Internet connections. By default, Java will use the network settings in your web browser. Only advanced users should modify these settings.
Network Settings...
Temporary Internet Files
Files you use in Java applications are stored in a special folder for quick execution later. Only advanced users should delete files or modify these settings.
Settings...
View...
Java in the browser is enabled.
See the Security tab
OK
Cancel
Apply
"About" Button
About Java
Java™
Standard Edition
Version 7 Update 21 (build 1.7.0_21-b11)
Java Version
For more information about Java technology and to explore great Java applications, visit http://www.java.com
ORACLE

5. Under the Security tab of the Java Control Panel, set the Security Level to Medium.

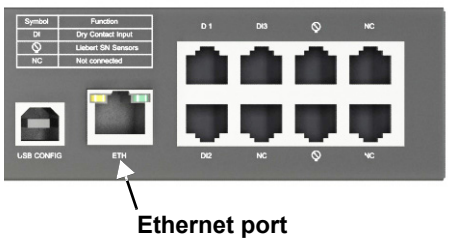


6. Click the "Apply" button to accept the changes
7. Under the Advanced tab disable (uncheck) the Java Plug-in option.
8. Click the "Apply" button to accept the changes and close the Java Control Panel. Follow the subsequent instructions for logging into the Liebert RDU-S.

5.0 SETTING THE IP ADDRESS

Follow these instructions to set the IP address of the Liebert RDU-S. This step is required for communication with the Liebert RDU-S using the Web interface.

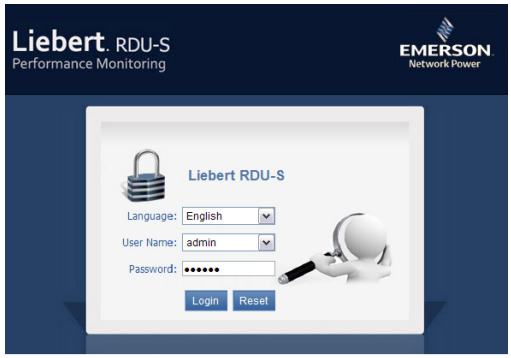
1. Connect a laptop and set its IP address:
   - Insert a standard Ethernet cable (not included) into the Ethernet port on the front panel of the Liebert RDU-S, shown at right.
   - Insert the other end of the cable into a laptop's Ethernet port.



- If needed, configure the laptop's IP settings to communicate on a 192.168.0.X network, for example:

IP address	192.168.0.9
Subnet mask	255.255.255.0
Default gateway	192.168.0.1

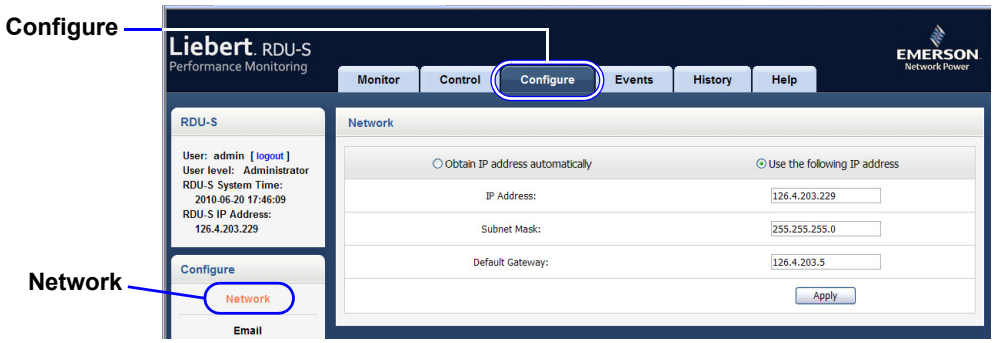
2. Open a browser and go to the login page:
   - Open a Web browser such as Microsoft Windows® Internet Explorer.
   - Enter the IP address of the Liebert RDU-S in the address bar—the default is **http://192.168.0.10**. The login window appears, shown at right.



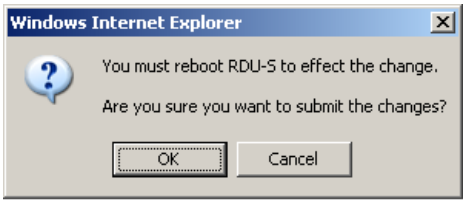
3. Log in to the Web interface:
   - Select a user name from the drop-down list and enter a password (both case-sensitive), then click the **Login** button:
     - **User Name** (default is *admin*)
     - **Password** (default is *Liebert*)

NOTE
For security, change the default password (see the user manual, SL-31310).

4. Click the **Configure** tab, then click **Network** at left.



5. Determine which method to use for IP address assignment: DHCP (automatic) or Static (fixed address).
   - For DHCP, click the **Obtain IP address automatically** button.
   - To assign a Static IP address, click **Use the following IP address**, then enter the appropriate IP address, subnet mask and gateway address, for example:
6. Click **Apply** to save any changes.
7. A confirmation window indicates the unit must be rebooted for the change to take effect. Click **OK**, and the unit will reboot.
8. If needed, reset the laptop's IP settings (as before **Step 1**.)


Windows Internet Explorer
You must reboot RDU-S to effect the change.
Are you sure you want to submit the changes?
OK
Cancel

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